

Listing of Claims

1. An antioxidant for an organic material, characterized in that the antioxidant comprises one or more compounds **[[,]] independently selected ~~independently from each other~~** from the group **~~comprising~~ consisting of** complexing agents, UV absorbers/quenchers, radical scavengers, peroxide decomposing agents, and reducing agents.

2. An antioxidant for an organic material according to claim 1, characterized in that the complexing agent is selected from the group **~~comprising~~ consisting of** aminopolycarboxylic acids, **[[and]]** polyaminocarboxylates, phosponates, phosphates, **[[and]]** polyphosphates, polyelectrolytes, macrocycles, polysaccharides, **[[and]]** ether derivatives **of polysaccharides thereof**, hydroxycarboxylates, **[[and]]** alkanol amines, N-salicylidene ethyl amine, N,N'-disalicylidene ethylene, triethylene diamine, lecithin, thiadiazole, imidazole **derivatives**, **[[and]]** pyrazole derivatives, phosphoric acid derivatives, silicic acid derivatives, and inositol derivatives.

3. An antioxidant for an organic material according to claim 1, characterized in that the UV absorber/quencher is **preferably** selected from the group **~~comprising~~ consisting of** hydroxyphenylbenzotriazoles, hydroxybenzophenones, formamidine, benzylidene camphor, phenolic antioxidants, sterically hindered phenols, and sterically hindered amines.

4. An antioxidant for an organic material according to claim 1, characterized in that the radical scavenger is selected from the group **~~comprising~~ consisting of** phenol derivatives, aromatic amines, alkylated diphenyl amines, dihydroquinoline derivatives, divalent sulfur derivatives, **and** trivalent phosphorus compounds.

5. An antioxidant for an organic material according to claim 1, characterized in that the peroxide decomposing agent is selected from the group **~~comprising~~ consisting of** halides, pseudohalides, and enzymes.

6. An antioxidant for an organic material according to claim 1, characterized in that the reducing agent is selected from the group **~~comprising~~ consisting of** hydrogen, reductors,

thiocarbamide, hydroxyacetone, borohydrides, boranes, sulfur dioxide, pyrosulfites, dithionites, hydrogen siloxanes, and reductive plasma.

7. An antioxidant for an organic material according to claim ~~any one of the claims 1 [[to 6]]~~, characterized in that the antioxidant additionally comprises one or more deacidifying agents.

8. An antioxidant for an organic material according to claim 7, characterized in that the deacidifying agent comprises an earth alkali compound.

9. An antioxidant for an organic material according to claim ~~any one of the claims 1 [[to 8]]~~, characterized in that the organic material is paper.

10. A method for treating organic material, characterized in that the organic material is brought in contact with an antioxidant according to claim ~~any one of the claims 1 [[to 9]]~~ for 1 minute to 72 hours at a temperature of 0 to 100°C ~~[[a]]~~ at pressure of 0.001 to 300 bar in an atmosphere that is low in oxygen.

11. A method for treating organic material according to claim 10, characterized in that the organic material is ~~brought in contact with an antioxidant according to any one of the claims 1 to 6 for 1 minute to 72 hours at a temperature of 0 to 100°C a pressure of 0.001 to 300 bar in an atmosphere that is low in oxygen, the organic material being~~ treated with one or more deacidifying agents prior to or following the contact with an antioxidant.

12. A method for treating organic material according to claim 11, characterized in that the deacidifying agent comprises an earth alkali compound.

13. A method for treating organic material according to claim ~~any one of the claims 10 [[to 12]]~~, characterized in that the organic material is paper.

14. A method for treating organic material according to claim ~~any one of the claims 10 [[to 13]]~~, characterized in that the organic material consists of documents and records.

15. **canceled**

16. **canceled**

17. **(new)** A method for preventing, slowing down, and/or reversing damage in an organic material due to oxidation and/or hydrolysis reactions, wherein the method comprises treating the organic material for about 1 minute to about 72 hours at a temperature of about 0 to about 100°C at pressure of about 0.001 to about 300 bar in an atmosphere that is low in oxygen with an the antioxidant comprising one or more compounds independently selected from the group consisting of complexing agents, UV absorbers/quenchers, radical scavengers, peroxide decomposing agents, and reducing agents.

18. **(new)** A method according to claim 17, wherein the method further comprises treating the organic material with one or more deacidifying agents prior to or following the treatment with an antioxidant.

19. **(new)** A method according to claim 17, wherein the organic material is paper.

20. **(new)** A method according to claim 17, wherein the complexing agent is selected from the group consisting of aminopolycarboxylic acids, polyaminocarboxylates, phosponates, phosphates, polyphosphates, polyelectrolytes, macrocycles, polysaccharides, ether derivatives of polysaccharides, hydroxycarboxylates, alkanol amines, N-salicylidene ethyl amine, N,N'-disalicylidene ethylene, triethylene diamine, lecithin, thiadiazole, imidazole derivatives, pyrazole derivatives, phosphoric acid derivatives, silicic acid derivatives, and inositol derivatives.

21. **(new)** A method according to claim 17, wherein the peroxide decomposing agent is selected from the group consisting of halides, pseudohalides, and enzymes.

22. **(new)** A method according to claim 17, wherein the reducing agent is selected from the group consisting of hydrogen, reductors, thiocarbamide, hydroxyacetone, borohydrides, boranes, sulfur dioxide, pyrosulfites, dithionites, hydrogen siloxanes, and reductive plasma.